

CLAIMS

1. A processor-readable medium comprising processor-executable instructions for rendering color data, the processor-executable instructions comprising instructions for:

rendering input color data, using rendering intent information, into a second image within an intent and format independent working color space; and

rendering the second image, according to a desired media type, into a third image within a media dependent color space.

2. The processor-readable medium of claim 1, wherein the intent and format independent working color space is fixed in size.

3. The processor-readable medium of claim 1, wherein a format of the second image within the intent and format independent working color space is not dependent on a format of the input color data.

4. The processor-readable medium of claim 1, wherein rendering input color data comprises instructions for:

rendering fully saturated colors within the input color data to a surface of the intent and format independent working color space.

5. The processor-readable medium of claim 1, wherein rendering input color data comprises instructions for:

selecting a look-up table from an intent library including default, device, SWOP or European standard press look-up tables.

6. The processor-readable medium of claim 1, wherein rendering the second image comprises instructions for:

selecting a look-up table from a media type library including standard, preferred, photo quality or gloss look-up tables.

7. A processor-readable medium comprising processor-executable instructions for rendering color information, the processor-executable instructions comprising:

selecting a first look-up table corresponding to a desired rendering intent;

rendering input information according to the desired rendering intent into an intent and format independent working color space having a fixed size, wherein saturated colors within the input information are rendered to a surface of the intent and format independent working color space;

selecting a second look-up table corresponding to an intended media type; and

rendering data within the intent and format independent working color space according to the intended media type to produce color data within a media dependent working color space.

8. The processor-readable medium of claim 7, wherein selecting the first look-up table comprises instructions for:

selecting the first look-up table from among a group including: default, device, SWOP or European standard press.

9. The processor-readable medium of claim 7, wherein selecting the second look-up table comprises instructions for:

selecting the second look-up table from among a group including: standard, preferred, photo quality and gloss.

10. The processor-readable medium of claim 7, additionally comprising instructions for:

transferring information from the media dependent working color space to an output image or stream.

11. A method of rendering color data, comprising:

using a rendering intent to select a first color look-up table;

rendering an input image with the first color look-up table to form an image within an intent and format independent working color space;

using media type and fusing information to select a second color look-up table; and

rendering the image within the intent and format independent working color space, using the second color look-up table, thereby forming an image in a media dependent working color space.

12. The method of claim 11, wherein:

the intent and format independent working color space has a fixed size, and has a format that is independent of a format of the input image; and

the media dependent working color space has a CMYK format.

13. The method of claim 11, additionally comprising:
receiving the input image formatted as an RGB, CMY or CMYK file or stream.

14. The method of claim 11, wherein rendering the input image comprises:

rendering saturated colors within the input image to colors on an edge of the intent and format independent working color space.

15. The method of claim 11, wherein:
selection of the first color look-up table is made from a library including default, device, SWOP or European standard press look-up tables; and
selection of the second color look-up table is made from a library including standard, preferred, photo quality or gloss look-up tables.

16. A color rendering apparatus, comprising:
means for rendering an input image, using rendering intent information, into a second image within an intent and format independent working color space; and

means for rendering the second image, according to a desired media type, into a third image within a media dependent color space.

17. The color rendering apparatus of claim 16, wherein the intent and format independent working color space is fixed in size.

18. The color rendering apparatus of claim 16, wherein a format of the second image within the intent and format independent working color space is not dependent on a format of the input image.

19. The color rendering apparatus of claim 16, additionally comprising:

means for driving a print engine with data from the third image.

20. The color rendering apparatus of claim 16, additionally comprising:

means for selecting a look-up table, with which to transform the input image into the intent and format independent working color space, from among an intent library including: default, device, SWOP or European standard press look-up tables; and

means for selecting a look-up table, with which to transform the second image into the media dependent working color space, from among a media type library including: standard, preferred, photo quality or gloss look-up tables.

21. The color rendering apparatus of claim 16, additionally comprising:

means for rendering fully saturated colors within the input image to a fixed surface of the intent and format independent working color space.

22. A color rendering apparatus, comprising:

an intent library containing a look-up table configured to map RGB or CMYK image data into an intent and format independent working color space having a fixed size;

a media type library containing a look-up table configured to map image data from the intent and format independent working color space into a media dependent working color space; and

a color rendering control procedure configured to utilize color look-up tables from both the intent library and the media type library to perform first and second renderings on an input file, respectively, wherein the first rendering results in intent and format independent output and the second rendering results in media dependent output.

23. The color rendering apparatus of claim 22, wherein the color rendering procedure is additionally configured to:

select a first look-up table from among a group including: default, device, SWOP or European standard press, found in the intent library; and

select a second look-up table from among a group including: standard, preferred, photo quality or gloss, found the media type library.

24. A color map library comprising:

an intent library containing an intent color look-up table configured to map RGB or CMYK color image data into an intent and format independent working color space; and

a media type library containing a media color look-up table configured to map data from the intent and format independent working color space into a media dependent working color space.

25. The color map library of claim 24, wherein the intent and format independent working color space is fixed size.

26. The color map library of claim 24, wherein the intent library comprises:

look-up tables configured for default, device, SWOP or European standard press mapping.

27. The color map library of claim 24, wherein the media type library comprises:

look-up tables configured for standard, preferred, photo quality or gloss mapping.

28. A printer, comprising:
a processor;
memory;
a color mapping apparatus, configured within the memory and executed by the processor, comprising:
an intent library, including an intent color look-up table, wherein the intent color look-up table is configured to render RGB or CMYK color data into an intent and format independent working color space having a fixed size;
a media type library, including a media color look-up table, wherein the media color look-up table is configured to render data from the intent and format independent working color space into a media dependent working color space; and
a color rendering control procedure to transform data using the intent library and the media type library; and
a print engine configured to receive information from the color mapping apparatus.